

CLAIMS

1. (Currently Amended) A solidified molten homogeneous mixture; the molten mixture containing, granular, free-flowing, agrochemical composition containing a salt of phosphorous acid and at least one other NPK nutrient, that is homogeneous in the chemical composition and uniform in particle size, that is water-soluble, and that comprises metal microelements, and a base selected from potassium carbonate and potassium hydroxide in an amount to at least partially neutralize said acid, at a temperature of from 60°C to 130°C; cooled and broken to water-soluble, granular, free-flowing agrochemical composition of uniform particle size containing from 0% to 1% water.
2. (Currently Amended) ~~An agrochemical composition of~~ A solidified mixture according to claim 1, wherein at least one of the said nutrient is chosen ~~selected~~ from the group consisting of monoammonium phosphate, monopotassium phosphate, dipotassium phosphate, potassium chloride, ammonium chloride, potassium sulfate, ammonium sulfate, and urea.
3. (Canceled)
4. (Currently Amended) A solidified mixture according to claim 1 ~~An agrochemical composition of any one of claims 1 to 3, wherein at least one of the said metal microelements are chosen~~ selected from the group consisting of zinc, copper, iron, manganese, molybdenum, and boron.

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5. (Currently Amended) A solidified mixture according to claim 1~~An agrochemical composition of any one of claims 1 to 4~~, wherein the said metal microelements are present as any commercially available salt.
6. (Currently Amended) A solidified mixture according to claim 1~~An agrochemical composition of any one of claims 1 to 4~~, wherein the said metal microelements are present in the form selected~~chosen~~ from the group consisting of chloride, sulfate, molybdate, ethylenediaminetetraacetate, and borate~~ic acid~~.
7. (Canceled)
8. (Currently Amended) A solidified mixture according to claim 1~~An agrochemical composition of any one of claims 1 to 7~~, additionally containing one or more additives that further enhance its fertilizing and pesticidal properties.
9. (Currently Amended) ~~An agrochemical composition of~~ A solidified mixture according to claim 8, wherein the additive is chosen from the group consisting of stimulant, pesticide, and surfactant.
10. (Currently Amended) ~~An agrochemical composition of~~ A solidified mixture according to claim 8, wherein the additive is humic acid.
11. (Canceled)
12. (Currently Amended) A solidified mixture according to claim 1~~An agrochemical composition of any one of claims 1 to 11~~, additionally containing

one or more additives that modify functional or aesthetic properties of the particles.

13. (Currently Amended) ~~An agrochemical composition of~~ A solidified mixture according to claim 12, wherein the additive is chosen from the group consisting of surfactant and dye.
14. (Currently Amended) A solidified mixture according to claim 1 ~~An agrochemical composition according to any one of claims 1 to 13~~, wherein ~~thesaid~~ NPK nutrient, other than a salt of phosphorous acid, comprises monoammonium phosphate or monopotassium phosphate.
15. (Currently Amended) A solidified mixture of claim 1 ~~An agrochemical composition of any one of any one of claims 1 to 14~~, which contains from 10 to 95 wt% salts of phosphorous acid.
16. (Currently Amended) A solidified mixture according to claim 1 ~~An agrochemical composition of any one of claims 1 to 15~~, which contains from 5 to 90 wt% of NPK nutrients; other than salts of phosphorous acid, and from 0.005 to 2 wt% metal microelements.
17. (Currently Amended) A solidified mixture according to claim 1 ~~An agrochemical composition of any one of claims 1 to 16~~, which is completely dissolved when mixed with water at ambient temperatures, in the ratio of 10 parts of the solid to 90 parts of water.
18. (Currently Amended) A solidified mixture according to claim 1 ~~An agrochemical composition of any one of claims 1 to 16~~, which is completely

dissolved when mixed with water at ambient temperature, in the ratio 20 parts of the solid to 80 parts of water.

19. (Currently Amended) A solidified mixture according to claim 1A~~n agrochemical composition of any one of claims 1 to 18~~, which provides a solution having pH 3.4-7.0, when dissolved 1 part in 100 parts of water.
20. (Canceled)
21. (Currently Amended) A solidified mixture according to claim 1A~~n agrochemical composition of any one of claims 1 to 20~~, which contains from 0.1 to 0.4 wt% water.
22. (Canceled)
23. (Currently Amended) A solidified mixture according to claim 1A~~n agrochemical composition of any one of claims 1 to 22~~, which contains from 15 to 35 wt% salts of phosphorous acid.
24. (Currently Amended) A solidified mixture according to claim 24A~~n agrochemical composition of any one of claims 1 to 23~~, which contains from 65 to 85 wt% of NPK nutrients; other than salts of phosphorous acid, and from 0.05 to 0.5 wt% metal microelements.
25. (Canceled)
26. (Currently Amended) A solidified mixture according to claim 1A~~n agrochemical composition of any one of claims 1 to 25~~, which provides a solution having pH 3.8-5.3, when dissolved 1 part in 100 parts of water.

27. (Canceled)

28. (Withdrawn) A process for the manufacture of an agrochemical composition, said process comprising i) blending and heating at a temperature from 60.degree. C. to 130.degree. C. a mixture containing phosphorous acid, at least one other NPK nutrient, metal microelements and other additives; ii) introducing a base into the mixture, thus at least partially neutralizing phosphorous acid, wherein the amount of the base is sufficient to provide that the pH of a 1% water solution of the final composition will be between 3.4 and 7.0; iii) homogenizing the mixture, while optionally lowering the pressure above the mixture; iv) and cooling the mixture, while obtaining a homogeneous, granular, free flowing and not caking material, containing from 0% to 1% water.

29. (Withdrawn) A process according to claim 28, wherein the molten mixture is neutralized by a base of formula MR, wherein M is selected from potassium and ammonium, and R is selected from carbonate and hydroxide.

30. (Withdrawn) A process according to claim 28, wherein the molten mixture is neutralized by potassium carbonate or potassium hydroxide.

31. (Withdrawn) A process according to claim 28, wherein the components may be added to the mixture in any order.

32. (Withdrawn) A process according to claim 28, wherein the components may be preheated in any order before forming the complete mixture.

33. (Withdrawn) A process according to claim 28, wherein the complete mixture has a temperature between 60⁰ C and 130⁰ C.

34. (Withdrawn) A process according to claim 28, said process further comprising a molten mixture.

35. (Withdrawn) A process according to claim 28, wherein the complete mixture is heated to a temperature between 61.degree. C. and 100.degree. C.

36. (Withdrawn) A process according to claim 28, said process yielding a granular composition homogeneous in chemical composition and uniform in particle-size.

37. (Withdrawn) A process according to claim 28, said process yielding a granular, free flowing composition that contains from 0.1% to 0.4% water.

38. (Withdrawn) A process according to claim 28, said process yielding a granular composition having hygroscopicity, as expressed by the critical relative humidity, from 50% to 65%.

39. (Withdrawn) A process according to claim 28, wherein the pressure is lowered below 70 mm Hg.

40. (New) A solid, granular, free-flowing, water-soluble, agrochemical composition containing a potassium salt of phosphorous acid, at least one other NPK nutrient, and metal microelements, being homogeneous in the chemical composition and uniform in particle size;

wherein said composition is a solidified molten mixture of phosphorous acid, at least one other NPK nutrient, metal microelements, and a base selected from potassium carbonate and potassium hydroxide at least partially neutralizing said acid at a temperature of from 60°C to 130°C;

and wherein said composition contains from 0% to 1% water.